(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 30 September 2004 (30.09.2004)

PCT

(10) International Publication Number WO 2004/083215 A2

(51) International Patent Classification7: A61K 31/4745, A61P 25/28

C07D 498/22,

(21) International Application Number:

PCT/EP2004/004016

(22) International Filing Date: 22 March 2004 (22.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/456,246

21 March 2003 (21.03.2003) US

- (71) Applicants (for all designated States except US): PALUMED SA [FR/FR]; Prologue Biotech, Rue Pierre et Marie Curie, F-31319 LABEGE CEDEX (FR). CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS) [FR/FR]; 3, Rue Michel-Ange, F-75794 PARIS CEDEX (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BOLDRON, Christophe [FR/FR]; "Tout va bien", 30, Place Sylvain Dumon, F-82400 VALENCE D'AGEN (FR). PITIE, Marguerite [FR/FR]; 17, Rue Romain Rolland, F-31520 RAMONVILLE (FR). MEUNIER, Bernard [FR/FR]; 7, Impasse des Meuniers, F-31320 CASTENET (FR).

- (74) Agents: PEAUCELLE, Chantal et al.; Cabinet ARMEN-GAUD AINE, 3, Avenue Bugeaud, F-75116 PARIS (FR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

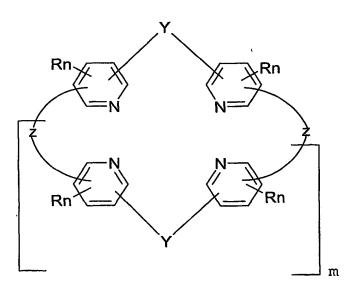
Published:

(I)

without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: NITROGENEOUS POLYCYCLIC DERIVATIVES USEFUL AS CHELATORS OF METAL IONS AND THEIR AP-**PLICATIONS**



(57) Abstract: The invention relates to the use of nitrogeneous polycyclic derivatives for preparing drugs for treating neurodegenerative diseases, said derivatives having formula: (I) wherein Rn is R1, R2, R3 and R4, identical or different and represent H or one or several radicals selected in the group comprising -OH, alkyl, -O-alkyl, -NH?2#191, -NH-alkyl, -N (R5, R6), the alkyl being a C1-C6 alkyl, or an halogen, forms a phenyl with both pyridines, optionally ortho-substituted by R5, or ortho-disubstituted by R5 and R6, said substitutuents, identical or different, being selected amongst alkyl, -O-alkyl, -NH?2#191, -NH-alkyl, -N (R5, R6), the alkyl being a C1-C6 alkyl, or an halogen, or represents -(CH?2#191) ?m1#191-W-(CH?2#191)?m1#191, with M1 and M2 being 0, 1 or 2, and W being

a group -CH?2#191-, -CH-(R7), 0, or N (R8, R9), R7, R8 and R9, identical or different, being a C1-C3 alkyl radical, or H, - Z is with n is 2 to 6, and n1 is 0 or 1, and the complexes thereof with transition metals.

WO 2004/083215 A2



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.